



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2012-0110]**

**An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions  
on Plant-Specific Changes to the Licensing Basis**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Regulatory guide; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 3 to Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." This proposed guide, Revision 3, has been revised to incorporate additional information related to the evaluation of defense-in-depth since Revision 2 of RG 1.174 was issued in 2011. The proposed revision includes additional guidance on defense-in-depth to assure the defense-in-depth philosophy is interpreted and implemented consistently.

**DATES:** Revision 3 to RG 1.174 is available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID NRC-2012-0110 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2012-0110. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "[Begin Web-based ADAMS Search.](#)" For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document. Revision 3 to RG 1.174 and the regulatory analysis may be found in ADAMS under Accession Nos. ML17317A256 and ML16358A156 respectively.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

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## **SUPPLEMENTARY INFORMATION:**

### **I. Discussion**

The NRC is issuing a revision to an existing guide in the NRC's "Regulatory Guide" series. This series was developed to describe and make available to the public information regarding methods that are acceptable to the NRC staff for implementing specific parts of the agency's regulations, techniques that the NRC staff uses in evaluating specific issues or postulated events, and data that the NRC staff needs in its review of applications for permits and licenses. Revision 3 of RG 1.174 describes an approach that is acceptable to the staff of the NRC when developing risk-informed applications for a licensing basis change that considers engineering issues and applies risk insights.

Revision 3 of RG 1.174 was issued with a temporary identification of Draft Regulatory Guide, DG-1285. This revision (Revision 3) presents up-to-date defense-in-depth guidance using precise language to assure the defense-in-depth philosophy is interpreted and implemented consistently. Revision 3 contains significant changes including expansion of the guidance on the meaning of, and the process for assessing, the defense-in-depth considerations.

In addition, this revision adopts the term "PRA Acceptability," including related phrasing variants, in place of terms such as "PRA quality," "PRA technical adequacy,"

and “technical adequacy” to describe the appropriateness of the PRA used to support risk-informed licensing submittals. Other changes in this revision include expanding the discussions on uncertainties, including aggregation of risk results, consistent with

NUREG-1855, “Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decisionmaking” (ADAMS Accession No. ML17062A466), updating the risk acceptance guideline figures, and incorporating discussions related to application of this guide to new reactors.

Regarding the guidance in Section C.6.3 of the guide on the licensee submittal documentation, the NRC has accepted via a letter issued on May 3, 2017 (See ADAMS Accession No. ML17079A427), an industry process entitled “Close-out of Facts and Observations (F&Os)” (See ADAMS Accession No. ML17086A431) that allows a licensee to formally close F&Os that were generated during a peer review process. If a licensee meets the conditions of acceptance as described in the NRC’s letter, a licensee does not need to submit the closed F&Os in any future applications. It should be noted that the NRC position in the May 3rd letter is expected to be incorporated into the next revision of RG 1.200, “An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities.”

## **II. Additional Information**

The NRC published a notice of the availability of DG-1285 in the *Federal Register* on April 7, 2017 (82 FR 17042), for a 45-day public comment period. The public comment period closed on May 22, 2017. Public comments on DG-1285 and the

staff responses to the public comments are available under ADAMS under Accession No. ML17261A618.

### **III. Congressional Review Act**

This RG is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

### **IV. Backfitting and Issue Finality**

RG 1.174 describes an approach that the NRC staff considers acceptable when developing risk-informed applications for a licensing basis change that considers engineering issues and applies risk insights. Issuance of this RG does not constitute backfitting as defined in section 50.109 of title 10 of the Code of Federal Regulations (10 CFR) (the Backfit Rule) and is not otherwise inconsistent with the issue finality provisions in 10 CFR part 52. As discussed in the “Implementation” section of this RG, the NRC has no current intention to impose this guidance on holders of current operating licenses or combined licenses.

This RG may be applied to applications for amendments to operating licenses or combined licenses docketed by the NRC as of the date of issuance, as well as future applications submitted after the issuance of this regulatory guide. Such action would not

constitute backfitting as defined in the Backfit Rule or be otherwise inconsistent with the applicable issue finality provision in 10 CFR part 52, inasmuch as such applicants or potential applicants are not within the scope of entities protected by the Backfit Rule or the relevant issue finality provisions in part 52.

Dated at Rockville, Maryland, this 25<sup>th</sup> day of January, 2018.

For the Nuclear Regulatory Commission.

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